

What is claimed is:

- 1 1. An insulation manufacturing system comprising a curing oven tower for heating
2 uncured or partially cured insulation mats, said curing oven tower comprising a plurality
3 of vertical oven zones comprising heat sources.
- 1 2. The system of claim 1, further comprising a conveyor system for moving said
2 insulation mats at least vertically through said curing oven tower.
- 1 3. The system of claim 2, wherein said conveyor system moves said insulation mats
2 both horizontally and vertically through said curing oven in a serpentine path.
- 1 4. The system of claim 3, wherein said path vertically overlaps itself.
- 1 5. The system of claim 4, wherein said conveyor system comprises a plurality of
2 conveyors disposed to move said insulation mats both horizontally and vertically through
3 said curing oven tower.
- 1 6. The system of claim 5, wherein said plurality of conveyors comprises a plurality
2 of pairs of counter rotating conveyors that cooperate to move said insulation mats
3 through said curing oven tower.
- 1 7. The system of claim 1, further comprising recirculating means for recirculating air
2 from a region proximate to the top of said curing oven tower to a region proximate to a
3 bottom of said curing oven tower.
- 1 8. A method of curing insulation comprising moving uncured or partially cured
2 insulation mats through a curing oven tower, said curing oven tower comprising a
3 plurality of vertical oven zones comprising heat sources.
- 1 9. The method of claim 8, wherein said moving step includes the step of moving
2 said insulation mats vertically through said oven tower.

1 10. The method of claim 8, wherein said moving step includes the step of moving
2 said insulation mats both horizontal and vertically through said curing oven in a
3 serpentine path.

1 11. The method of claim 10, wherein said path vertically overlaps itself.

1 12. The method of claim 11, wherein said moving step includes the step of conveying
2 said insulation mats with a plurality of conveyors disposed to move said insulation mats
3 both horizontally and vertically through said oven tower.

1 13. The method of claim 12, wherein said plurality of conveyors comprises a plurality
2 of pairs of counter rotating conveyors that cooperate to move said insulation mats
3 through said oven tower.

1 14. The method of claim 8, further comprising the step of recirculating air from a
2 region proximate to the top of said curing oven tower to a region proximate to a bottom
3 of said curing oven tower.

1 15. The method of claim 8, wherein said insulation mats comprise glass fibers.

1 16. A insulation manufacturing system comprising a curing oven tower for heating
2 uncured or partially cured insulation mats, said curing oven tower comprising a heat
3 source and a conveyor system for moving said insulation mats both vertically and
4 horizontally through said curing oven tower in a serpentine path.

1 17. The system of claim 16, wherein said conveyor system comprises a plurality of
2 cooperable conveyors arranged to move said insulation mats both horizontally and
3 vertically through said oven tower.

1 18. The system of claim 17, wherein said plurality of conveyors comprises a plurality
2 of pairs of counter rotating conveyors that cooperate to move said insulation mats
3 through said oven tower.

1 19. The system claim 17, wherein said serpentine path vertically overlaps itself.

1 20. The system of claim 16, further comprising recirculating means for recirculating
2 air from a region proximate to the top of said curing oven tower to a region proximate to
3 a bottom of said curing oven tower.

1 21. The system claim 16, wherein said serpentine path vertically overlaps itself.

1 22. A method of curing insulation comprising moving uncured or partially cured
2 insulation mats both horizontally and vertically in a serpentine path through a curing
3 oven tower comprising a heat source.

1 23. The method of claim 22, wherein said, said curing oven tower comprises
2 conveyor system for moving said insulation mats both vertically and horizontally through
3 said curing oven tower, said moving step comprising the step of conveying said
4 insulation mats with said conveyor system.

1 24. The method of claim 23, wherein said conveying step includes the step of
2 conveying said insulation mats with a plurality of cooperable conveyors disposed to
3 move said insulation mats both horizontally and vertically through said oven tower.

1 25. The method of claim 24, wherein said plurality of conveyors comprises a plurality
2 of pairs of counter rotating conveyors that cooperate to move said insulation mats
3 through said oven tower.

1 26. The method of claim 24, wherein said serpentine path vertically overlaps itself.

1 27. The method of claim 22, further comprising the step of recirculating air from a
2 region proximate to the top of said curing oven tower to a region proximate to a bottom
3 of said curing oven tower.

1 28. The method of claim 22, wherein said insulation mats comprise fiberglass.

1 29. The method of claim 22, wherein said serpentine path vertically overlaps itself.